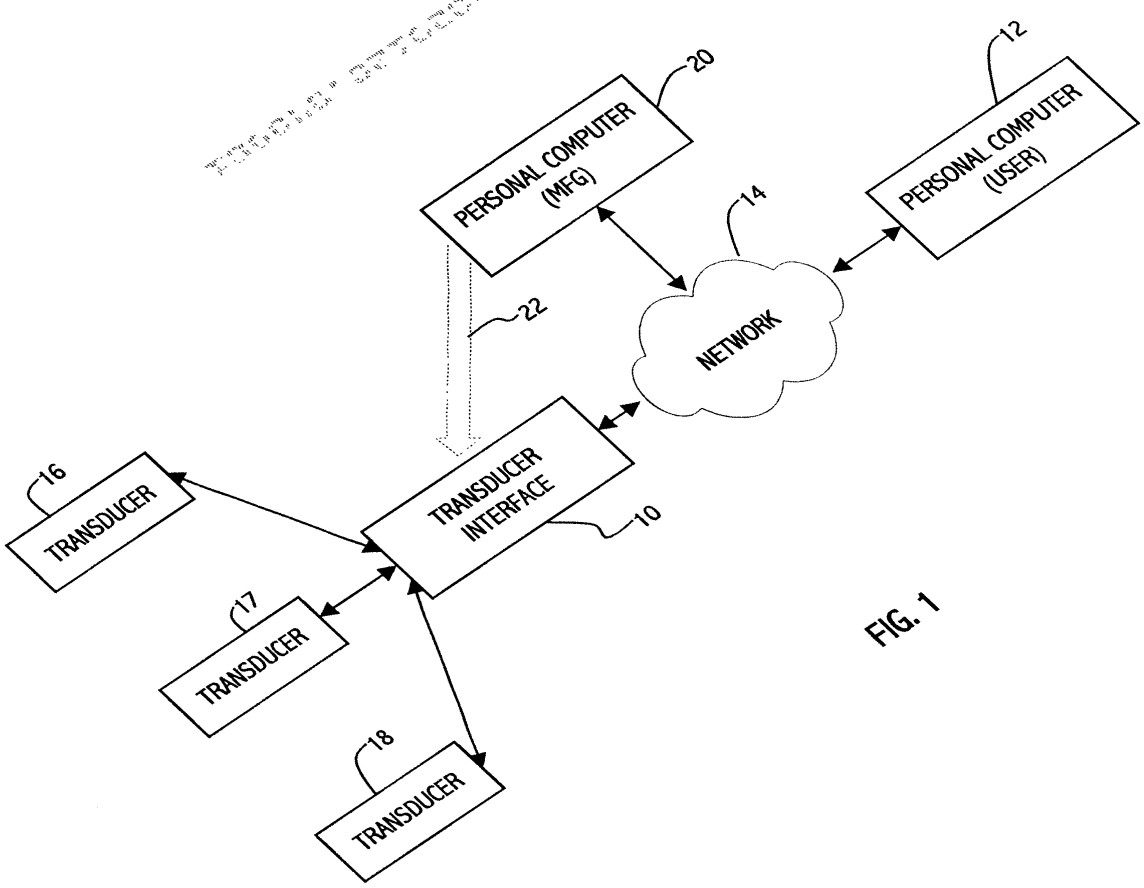

PERSONAL COMPUTER (MFG)
20
PERSONAL COMPUTER (USER)
12
14
NETWORK
22
TRANSDUCER INTERFACE
10
16
TRANSDUCER
17
TRANSDUCER
18
TRANSDUCER

FIG. 1

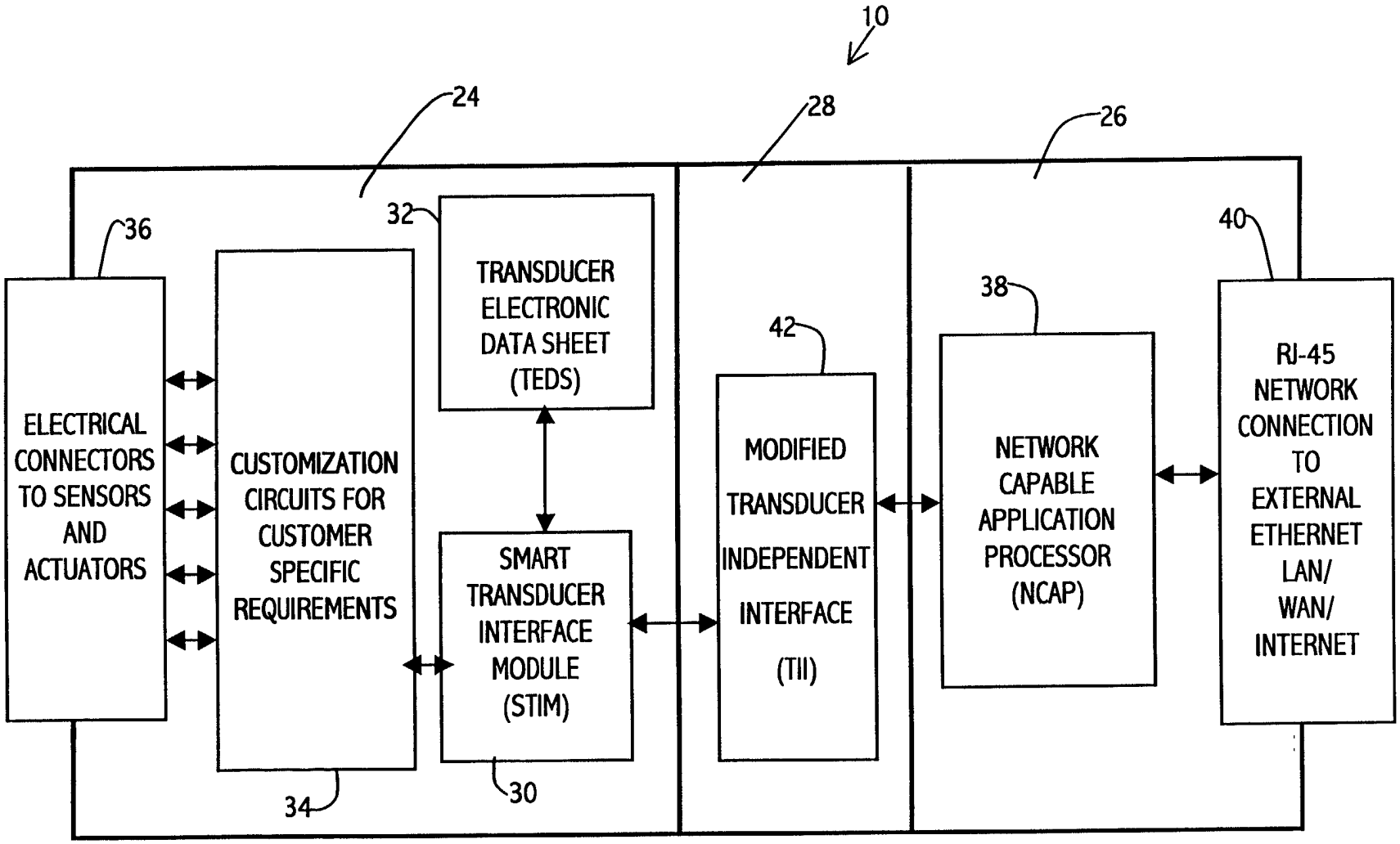

10
24
28
26
36
32
40
38
42
ELECTRICAL CONNECTORS TO SENSORS AND ACTUATORS
CUSTOMIZATION CIRCUITS FOR CUSTOMER SPECIFIC REQUIREMENTS
TRANSDUCER ELECTRONIC DATA SHEET (TEDS)
SMART TRANSDUCER INTERFACE MODULE (STIM)
MODIFIED TRANSDUCER INDEPENDENT INTERFACE (TII)
NETWORK CAPABLE APPLICATION PROCESSOR (NCAP)
RJ-45 NETWORK CONNECTION TO EXTERNAL ETHERNET LAN/ WAN/ INTERNET
34
30

FIG. 2

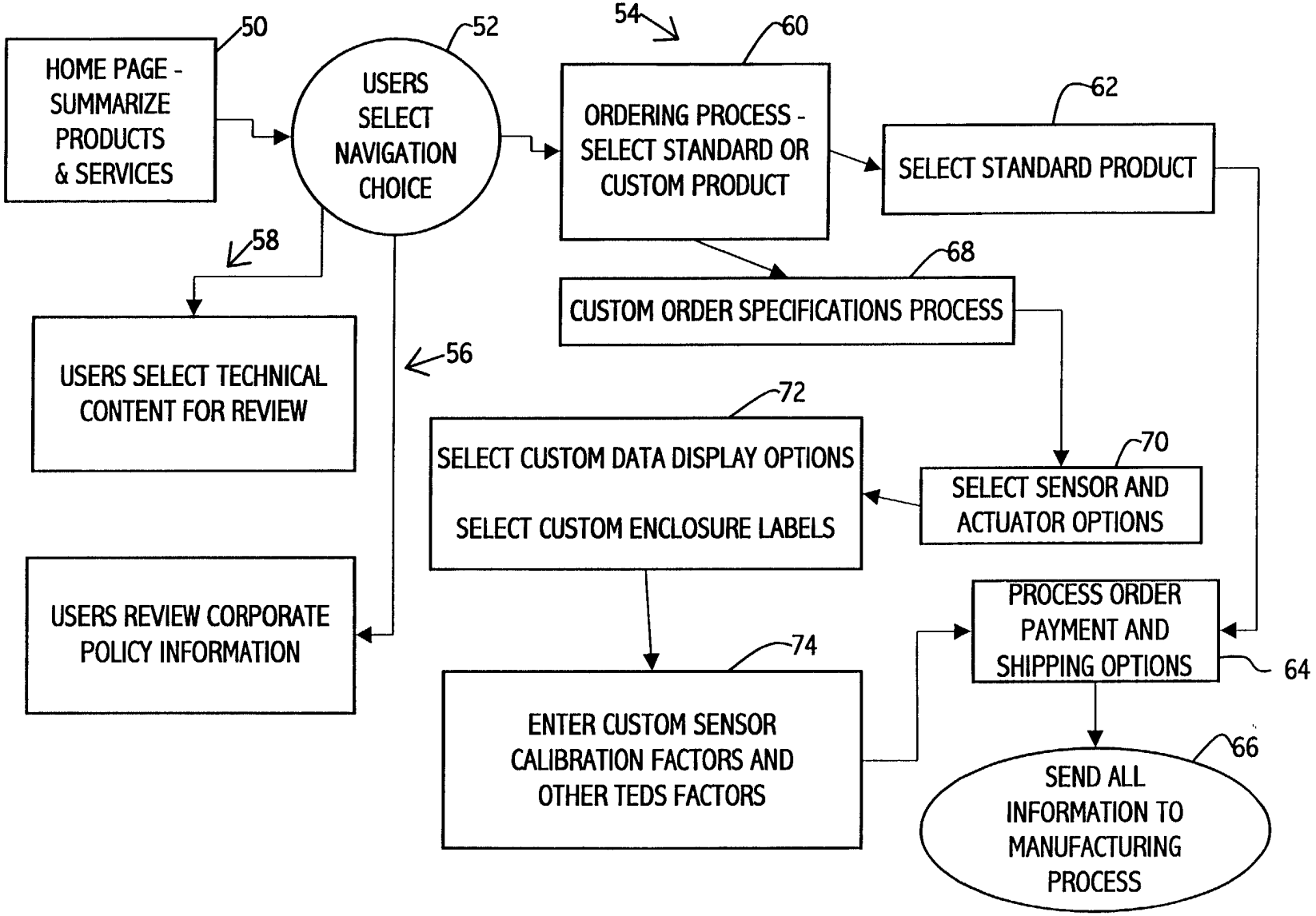

HOME PAGE - SUMMARIZE PRODUCTS & SERVICES
50
USERS SELECT NAVIGATION CHOICE
52
54
ORDERING PROCESS - SELECT STANDARD OR CUSTOM PRODUCT
60
SELECT STANDARD PRODUCT
62
58
USERS SELECT TECHNICAL CONTENT FOR REVIEW
56
CUSTOM ORDER SPECIFICATIONS PROCESS
68
72
SELECT CUSTOM DATA DISPLAY OPTIONS
SELECT CUSTOM ENCLOSURE LABELS
SELECT SENSOR AND ACTUATOR OPTIONS
70
USERS REVIEW CORPORATE POLICY INFORMATION
PROCESS ORDER PAYMENT AND SHIPPING OPTIONS
64
74
ENTER CUSTOM SENSOR CALIBRATION FACTORS AND OTHER TEDS FACTORS
66
SEND ALL INFORMATION TO MANUFACTURING PROCESS

FIG. 3

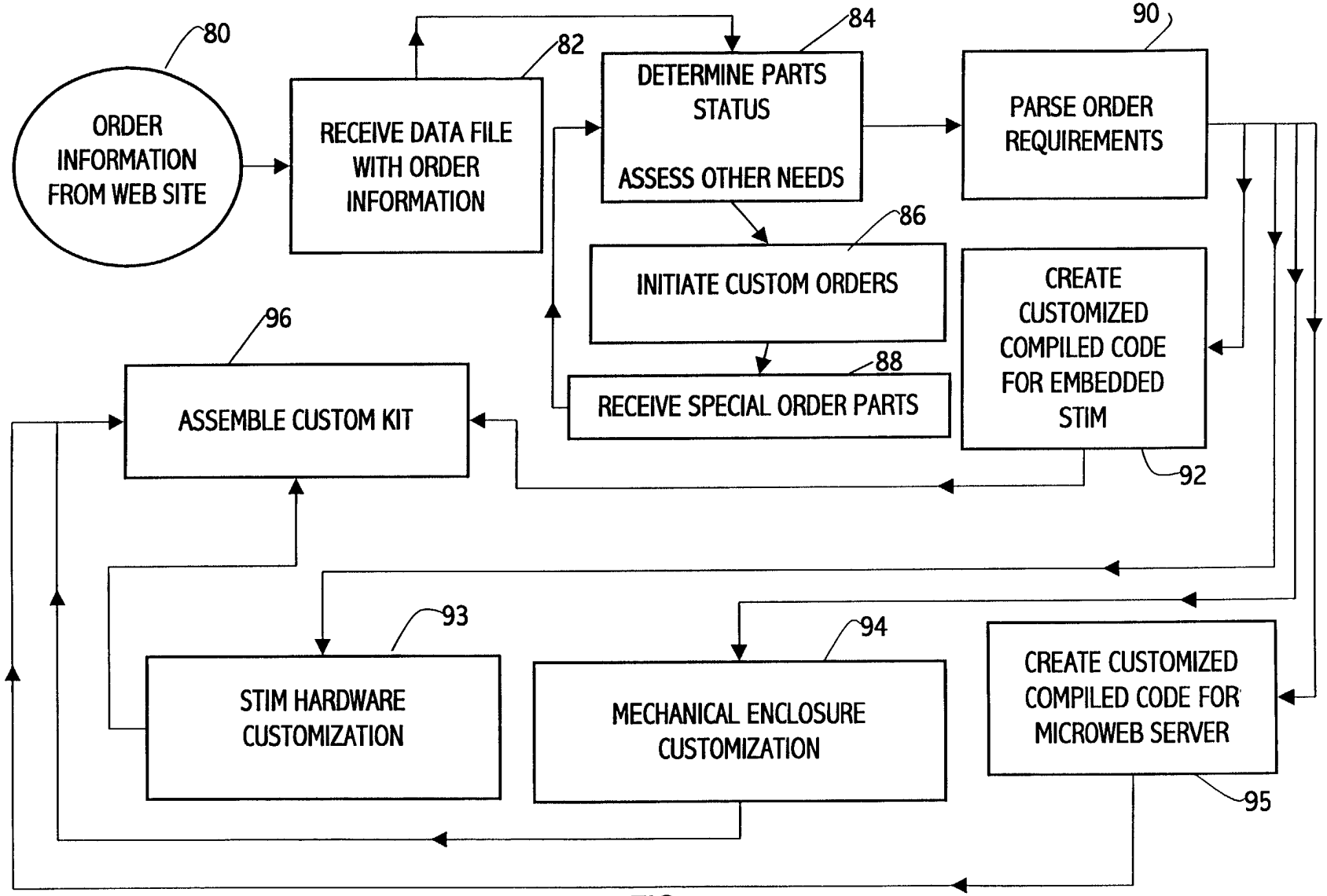

80
ORDER INFORMATION FROM WEB SITE
82
RECEIVE DATA FILE WITH ORDER INFORMATION
84
DETERMINE PARTS STATUS
ASSESS OTHER NEEDS
90
PARSE ORDER REQUIREMENTS
86
INITIATE CUSTOM ORDERS
88
RECEIVE SPECIAL ORDER PARTS
CREATE CUSTOMIZED COMPILED CODE FOR EMBEDDED STIM
92
96
ASSEMBLE CUSTOM KIT
93
STIM HARDWARE CUSTOMIZATION
94
MECHANICAL ENCLOSURE CUSTOMIZATION
CREATE CUSTOMIZED COMPILED CODE FOR MICROWEB SERVER
95

FIG. 4

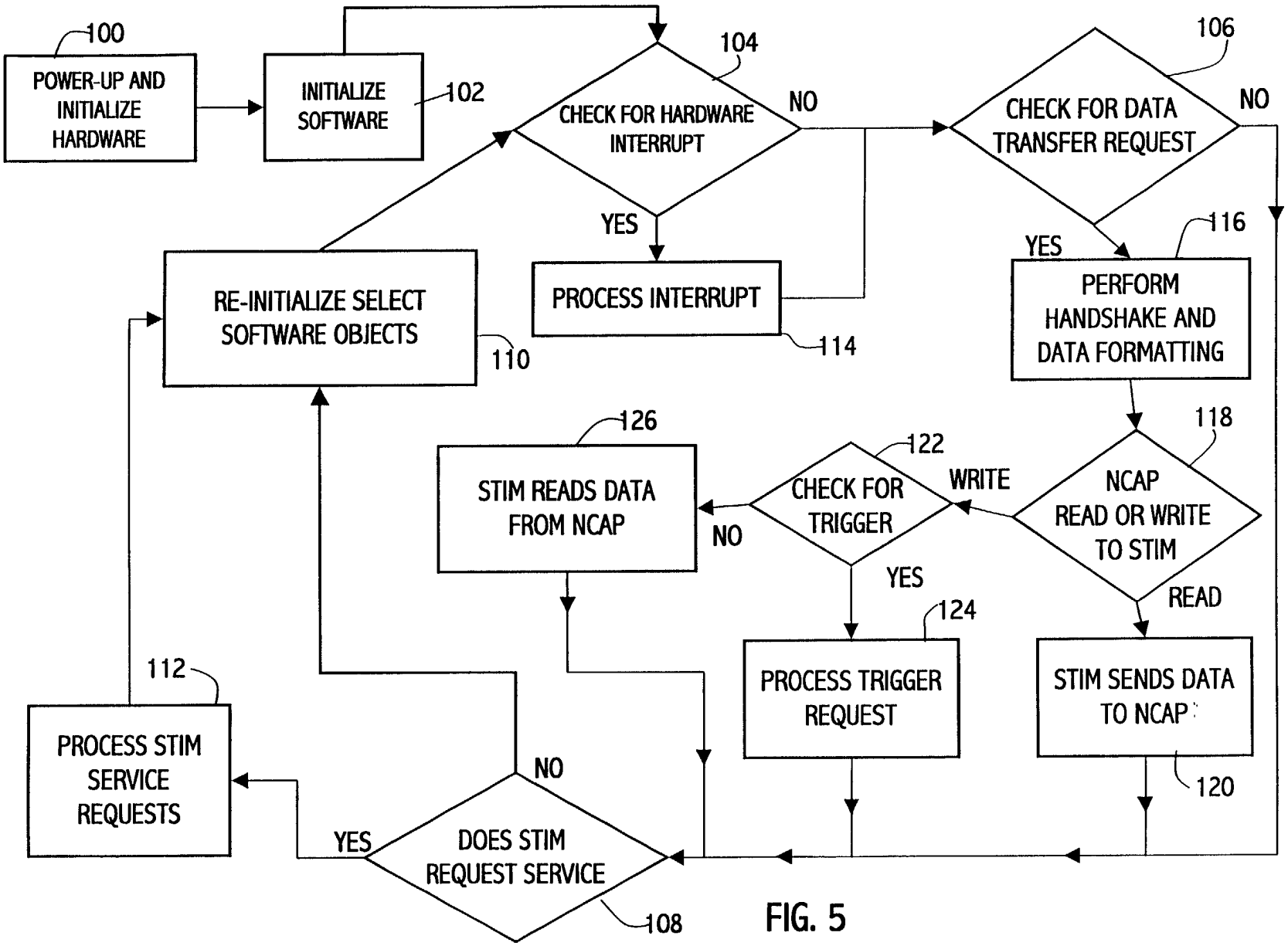

100
POWER-UP AND INITIALIZE HARDWARE
INITIALIZE SOFTWARE
102
104
CHECK FOR HARDWARE INTERRUPT
NO
YES
106
CHECK FOR DATA TRANSFER REQUEST
NO
YES
116
PERFORM HANDSHAKE AND DATA FORMATTING
PROCESS INTERRUPT
114
RE-INITIALIZE SELECT SOFTWARE OBJECTS
110
126
STIM READS DATA FROM NCAP
122
CHECK FOR TRIGGER
WRITE
NO
YES
118
NCAP READ OR WRITE TO STIM
READ
124
PROCESS TRIGGER REQUEST
STIM SENDS DATA TO NCAP
120
112
PROCESS STIM SERVICE REQUESTS
NO
YES
DOES STIM REQUEST SERVICE
108

FIG. 5

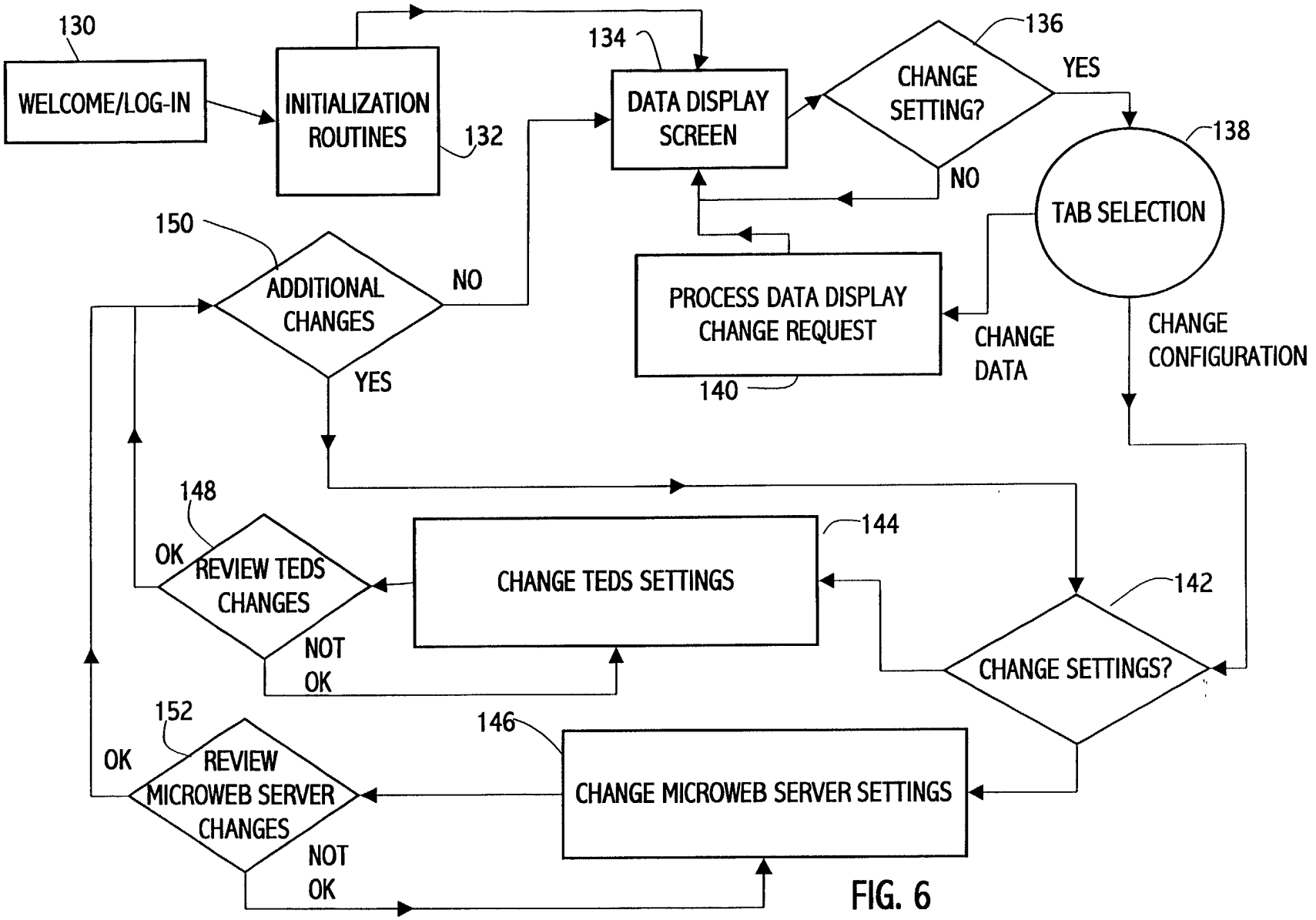

130
WELCOME/LOG-IN
INITIALIZATION ROUTINES
132
134
DATA DISPLAY SCREEN
136
CHANGE SETTING?
YES
NO
138
TAB SELECTION
150
ADDITIONAL CHANGES
NO
YES
PROCESS DATA DISPLAY CHANGE REQUEST
140
CHANGE DATA
CHANGE CONFIGURATION
148
OK
REVIEW TEDS CHANGES
NOT OK
CHANGE TEDS SETTINGS
144
142
CHANGE SETTINGS?
152
OK
REVIEW MICROWEB SERVER CHANGES
NOT OK
146
CHANGE MICROWEB SERVER SETTINGS

FIG. 6

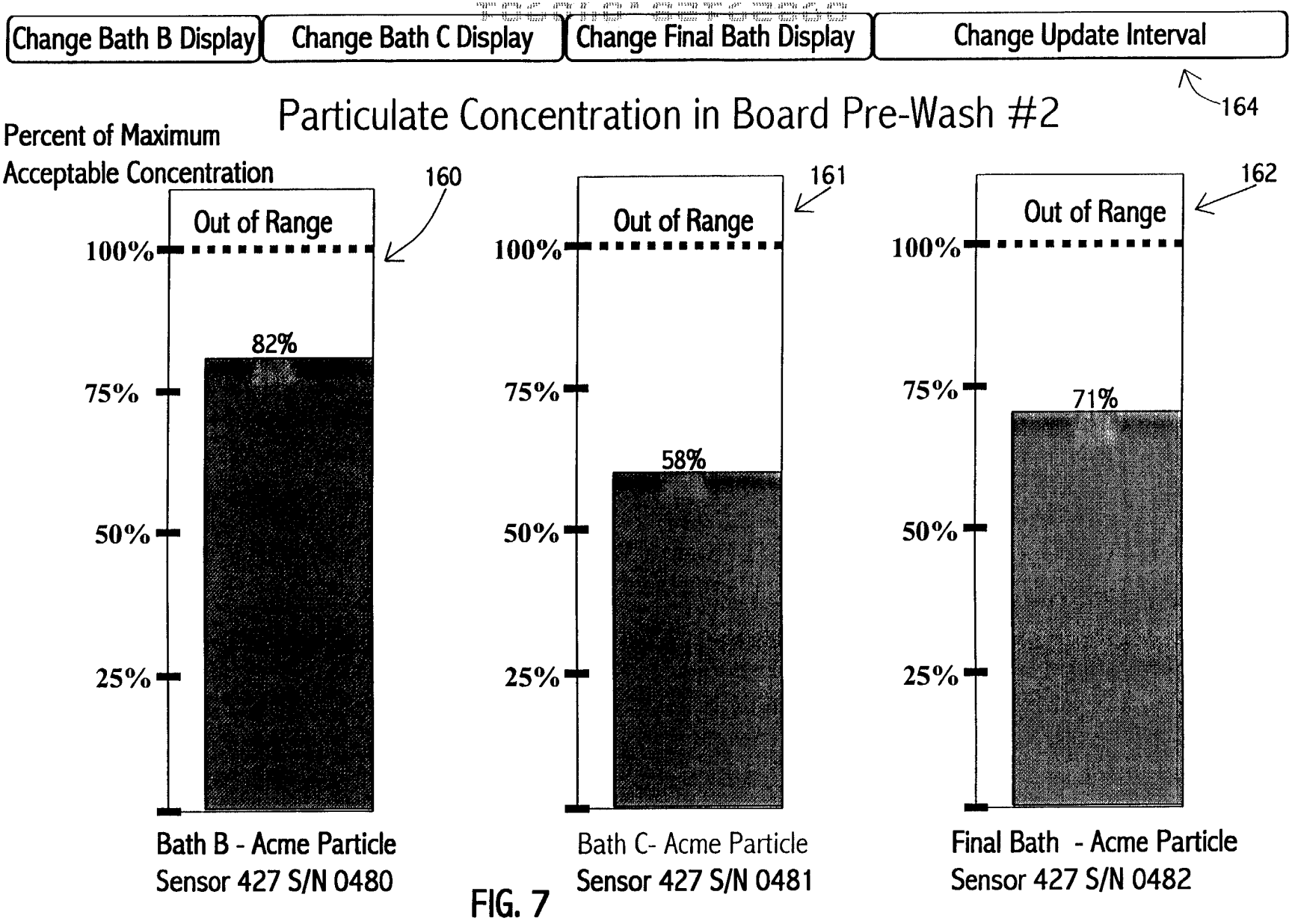

Change Bath B Display
Change Bath C Display
Change Final Bath Display
Change Update Interval
164
Particulate Concentration in Board Pre-Wash #2
Percent of Maximum
Acceptable Concentration
160
161
162
Out of Range
Out of Range
Out of Range
100%
75%
50%
25%
82%
58%
71%
Bath B - Acme Particle
Sensor 427 S/N 0480
Bath C- Acme Particle
Sensor 427 S/N 0481
Final Bath - Acme Particle
Sensor 427 S/N 0482

FIG. 7

Board Dryer Temperature Profile

166

TIME	TC#84 - TEMP. AT ENTRY	TC#85 - TEMP. IN MID-TUNNEL	AMBIENT REL HUMIDITY
14:50	52 C	82 C	45%
14:55	51 C	81 C	44%
15:00	48 C	81 C	42%
15:05	46 C	82 C	41%
15:10	43 C	83 C	42%
15:15	44 C	84 C	43%
15:20	44 C	85 C	44%
15:25	45 C	85 C	45%
15:30	46C	84 C	46%
15:35	47 C	84 C	47%
15:40	48C	83 C	48%
15:45	49 C	82 C	49%
15:50	49 C	83 C	49%
15:55	50 C	82 C	48%

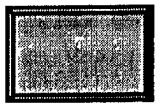
CLICK BUTTON TO ACTIVATE AUXILLIARY HUMIDITY EXHAUST FAN  170

FIG. 8

CHANGE TIME SCALE | CHANGE TEMPERATURE SCALE | CONFIGURE T.C. #2 | CONFIGURE SOLVENT OPACITY SENSOR

174

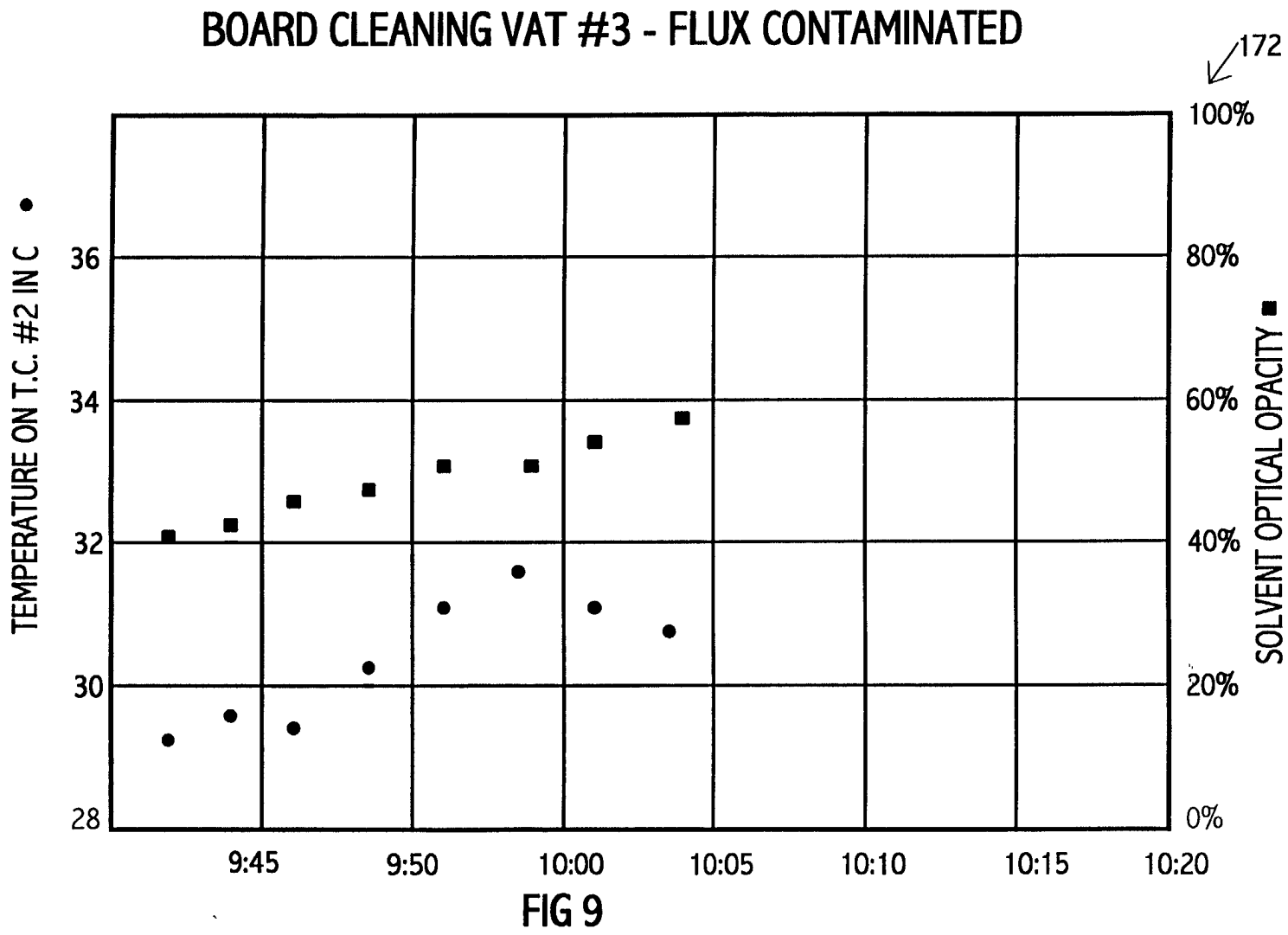


FIG 9